

# **Model 505 Video Typewriter**

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## **Operating Manual**

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# **SHINTRON**

**Worldwide**

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**The unit described herein is manufactured under license from Video Data Systems, a division of General Electric.**

## SHINTRON MODEL 505 VIDEO TYPEWRITER OPERATING GUIDE

The following information is intended to serve as a guide for using the Video Typewriter. It is suggested that this material be reviewed while seated at the Video Typewriter after it is fully connected.

The Video Typewriter is a complex electronic instrument. Proper and complete utilization of the unit is not difficult. However, some amount of study and practice is advisable before an attempt is made to use the machine in video production. The following information will provide a sound basis for learning to use the Video Typewriter. In the back of this manual, we have included a data sheet which gives the location of front panel controls.

### REAR PANEL - ELECTRONIC CONNECTIONS

All electronic connectors on the rear of the unit are of the BNC type. BNC's provide a quick, sure connection which maintains the coaxial properties of video cable. BNC connectors are easily attached and removed, and yet, at the same time, there is no risk of their being inadvertently disconnected.

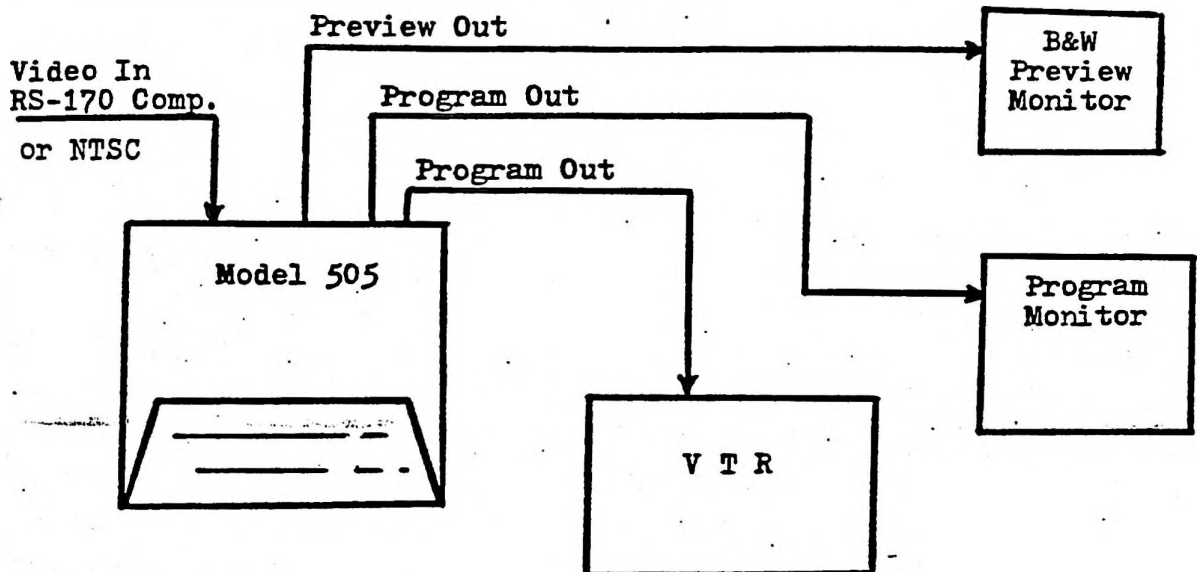
### AC POWER SWITCH

The power switch is located on the rear of the unit to prevent inadvertent loss of power to the unit. When power is lost at any time, any information stored in memory is lost. The Video Typewriter is designed for continuous use. There is no need to keep turning the unit on and off during intermittent use. If the serial number of your unit is higher than 22426, then your unit contains non-volatile memory. Power-loss will not affect the contents of the memory in this case.

### NON VOLATILE MEMORY

If the serial number of your unit is higher than 22426, then your unit is equipped with non-volatile memory. If the power is lost at any time, information stored in the memory will be retained. The length of retention time is approximately 30 days provided the unit has been powered for a minimum of 17 hours prior to the loss of power.

### BASIC INSTALLATION OF MODEL 505



The Video Typewriter is designed to be used in a downstream configuration. When used in this mode, the characters are self-keyed into Program Video. This configuration is very convenient. Also, the keyer within the unit is of very high quality.

### VIDEO IN

The Model 505 locks onto composite RS-170 or NTSC video. Apply

the signal to the BNC connector designated VIDEO IN. If the signal is "looped thru" and terminated elsewhere, the 75 ohm switch must be in the OUT position.

### PREVIEW

One preview output is available to view the output of the video typewriter. It always displays white characters on a black background. The preview does not display the incoming video. Also, the font enhancement controls do not affect the display on the preview monitor. It is suggested that the video typewriter always be used with a preview monitor.

### PROGRAM

The video typewriter is equipped with 2 PROGRAM OUTPUTS labeled "1" and "2".

### AUTOMATIC BYPASS

PROGRAM OUTPUT 1 is equipped with automatic bypass. This means that when the video typewriter is turned off, the signal being fed to the VIDEO INPUT will automatically be looped through to PROGRAM OUTPUT 1. Please note that the automatic bypass capability will operate properly ONLY when the VIDEO IN LOOP THROUGH is not being used, and the built-in 75 ohm termination switch is in the IN position. Engaging the automatic bypass in this configuration will also bypass the built-in terminator.

### KEYBOARD CONTROLS

The keyboard of the video typewriter is similar to that of a standard typewriter. When typing on the unit, however, please note that carriage returns will occur automatically when the

operator types beyond the right-hand margin. Also, in the event that an operator types beyond the right-hand-most space at the bottom of the page, the unit will automatically return to the top of the SAME page.

The keyboard on the Model 505 is equipped with an automatic repeat feature. Whenever a key is pushed down for longer than 1 second, the function will automatically repeat.

This feature is especially useful when applied in conjunction with the SPACE BAR and CURSOR CONTROLS.

#### FLASH

This control is used to record flashing characters into memory. To activate the Flash control, depress the FLASH and then depress the number "1". Characters typed after this operation will flash. To de-activate the Flash control, depress FLASH followed by the number "2".

When a video typewriter is first turned on, it may automatically be in the FLASH mode. In that event, the operator should first depress FLASH and then the number "1".

#### CURSOR

This control is used to display the cursor in the preview monitor. The cursor is activated by depressing CURSOR followed by the number "1". The cursor can be removed from the preview monitor by depressing CURSOR followed by the number "2". It is recommended that the unit always be operated with cursor on. It is not possible to have the cursor displayed on PROGRAM.

INSERT

This control is used to INSERT the information stored in the PROGRAM section of the video typewriter memory into the Program video output. This control is always used in conjunction with the PAGE SELECT switch above the keyboard. Material cannot be inserted and displayed unless PAGE SELECT switch has first been depressed.

CRAWL AND STOP CRAWL

This control is used to cause material in the selected Program and Preview pages to move horizontally across the screen. The Video Typewriter is programmed to crawl through the selected page once. The selected page will then reappear in its entirety on the preview monitor, and the program monitor will remain blank. The program page will still carry the content in memory. The program page will not reappear on Program until the INSERT key is released and depressed again.

A page can be made to CRAWL across the screen continuously by depressing the CRAWL CONT switch above the keyboard. A system for manually terminating the CRAWL mode has been added to the 505. A CRAWL can be stopped after the first line by depressing the STOP CRAWL key.

Of Special Note: Any time that the manual crawl end control is depressed, the INSERT key is automatically disengaged, removing all character information from the PROGRAM monitor. The INSERT key may be re-engaged by simply releasing it and depressing it again. Please note that in the CRAWL mode, the video typewriter will crawl through blank lines the same as if there were information on those lines.

A B C D E

ROLL

This control is used to cause text stored on pages 8 through 15 in the Preview and Program memory to ROLL vertically from the bottom of the screen to the top. The ROLL is continuous until the ROLL function is stopped by the user.

The length of the message to be rolled can be varied with the use of the 3-position ROLL switch located in the bank of switches on the upper panel of the video typewriter.  
(See ROLL 8/4/2)

Also, the ROLL message can be rolled through a 1 line, 2 line, or full-page WINDOW selectable. (See section WINDOW)

ROLL HOLD

Units manufactured after June 30, 1980 are equipped with a ROLL HOLD function. This feature permits a ROLL to be held at any time for any length of time. A roll may be continued by simply pushing the ROLL HOLD key again.

The ROLL HOLD key is located directly under the CNCL LINE key. Alternatively, this key may be labeled "RETURN".

CANCEL LINE

This control erases the Preview line on which the cursor is located. The position of the cursor is not affected. If the same pages have been selected in Program and Preview, the line will also be erased from the Program output.

A

B

C

D

E

LF (LINE FEED)

This control is similar to the carriage return on a regular typewriter. The cursor is moved to the left-hand margin of the following line.

HOME

This control moves the cursor to the left-hand margin on Line No. 1. In terms of pages 8 to 15, Line No. 1 will always be the first line on each page. In terms of pages 0 to 7, the position of Line No. 1 may be anywhere on the page.

CLEAR

This control erases the entire page which is displayed on the Preview monitor.

SCREEN UP AND SCREEN DOWN

These two controls are effective only on Preview pages 0 through 7. They permit the operator to REFORMAT these pages by moving the lines up or down. (This will explain why the HOME position for the cursor on these pages is not necessarily the top left-hand corner).

These controls are very useful for displaying consecutive one-line titles on Program. To perform this operation, it is necessary that the same page be selected on Program and Preview, and a 1-line window be selected.

FOUR ARROWS — UP, DOWN, LEFT, RIGHT

These four controls are used to position the cursor on the Preview monitor. By using these four controls, along with the



HOME, LF, and CR, it is possible to position the cursor anywhere on the screen very quickly. When these controls are utilized, the cursor may be jumped over existing information, and the information will not be affected.

### ROLL 8/4/2

This three-position switch is always used in conjunction with the ROLL control on the keyboard. The position of this switch determines the AMOUNT of information which is to be rolled. For example, when the switch is in the 8 position, eight pages of information will be rolled when the keyboard-level ROLL control is activated, (pages 8 through 15 will roll). Likewise, when this switch is in the 4 or 2 position, four pages (pages 8 to 11), or two pages (8 and 9) will be rolled respectively.

### WINDOW

This control is a three-position switch, and in normal operation, this switch will be in the middle position. When the switch is in the up position, a one-line window will be in effect. This means that all material appearing on Program will be blocked out, except for one line at the bottom of the screen.

PLEASE NOTE: the one- and two-line windows should not be used in the ROLL mode with SMALL characters. Windows do not appear in the preview monitor.

please note that when windows are used to display information and the operator selects a page on Program which does not contain information on the bottom two lines, it is possible to have the appearance of a malfunction, (i.e., the operator will be unable to have material appear on program until the WINDOW switch is returned to its middle position—WINDOW OFF.)

PLEASE NOTE:

The controls described below, SMALL/LARGE, CRAWL CONT, AND EDGE/DS, were formerly controlled by two-position switches. In order that expansion capabilities planned for the future may be easily incorporated, these switches have been changed to three-position switches. Although the center position does operate in a similar fashion to the top positions, CONTROL IN THE CENTER POSITIONS IS NOT POSITIVE. Operation of the unit with these controls in the center positions should definitely be avoided.

SMALL/LARGE

This two-position switch determines the vertical size of the characters on the screen. When Large characters are selected, the characters will not affect horizontal spacing. It is not possible to mix small and large characters on the same screen. The number of characters that can be stored in one page of memory is the same for small and large characters.

OF PARTICULAR IMPORTANCE:

Units manufactured after May 1, 1981 with serial numbers of 25513 (NTSC) or 26526 (PAL) or higher, have lowercase characters as a standard feature. Unlike earlier versions of the 505, it is possible to mix upper and lowercase characters on the same screen. To type uppercase characters, simply depress the Shift Key as in a conventional typewriter. Release Shift Key to type lowercase characters. It is still possible to use the SMALL/LARGE Switch to affect the vertical size of the characters.

PLEASE NOTE:

For a relatively small charge, it is possible to equip any 505 with both non-volatile memory and lowercase characters. Contact your local distributor or the Shintron Sales Office for information.

WC/BC

This three-position switch controls the appearance of the main character information. In the top position a white character (WC) is displayed. In the middle position, the main character information DOES NOT appear. In the lower position, the main character information is black (BC).

BB/WB

This three-position switch controls the appearance of the borderlines around the main character. In the top position, a black borderline (BB) is displayed around the main character. In the middle position, no borderline is displayed. In the lower position, a white borderline (WB) is displayed around the character.

PLEASE NOTE:

It is possible to have the appearance of a malfunction when both of the above two switches are in their middle positions. In this instance, the video typewriter will not display any character information nor any borderline information on the Program.

EDGE/DS

This two-position switch determines whether a selected borderline

appears on all edges of the character (ISOTROPIC ENHANCEMENT), or only on the right-hand and lower edges, giving a Drop Shadow (DS) effect.

#### PAGE SELECT

This push-button switch is used to call pages selected for display on Preview or Program. The Page Select operates on the vertical interval of a video signal, and it may be used to perform direct on-air switching between pages.

#### PROGRAM AND PREVIEW THUMBWHEELS

These thumbwheels are used to address pages in memory. The 16 pages are numbered from 0 through 15. Addressed pages are called into active memory and are available for display on Preview and Program monitors only after the PAGE SELECT is depressed. The mere turning of the thumbwheel in and of itself will not change the Preview and Program displays.

USING THE MODEL 505 VIDEO TYPEWRITER

Before using the Video Typewriter, make certain that the unit has power and that it is properly connected. Composite video must be fed to one of the video inputs, and if the video is not looped through, the termination switch should be in the "IN" position. One of the program outputs should be connected to a Program monitor, and the preview output should be connected to a Preview monitor. If the cursor does not appear in the Preview monitor, depress the CURSOR control key followed by the number "1".

When a unit is first turned on, the display may CRAWL. This is normal. If this occurs, wait a few seconds, push CRAWL STOP, push the INSERT key twice, and proceed normally.

WARM UP

It is recommended that the unit be allowed to warm up to its normal operating temperature. In normal control conditions, five minutes will generally be sufficient.

PAGE SELECT

When the Page Select is depressed after first turning the unit on, the operator can be assured that the pages which have been dialed on the Program and Preview thumbwheels are the same pages which are actually available for viewing.

CLEAR

If your 505 does not have the non-volatile option, anytime the unit is first turned on, a random display of characters will appear on the Preview screen. This will be erased by depressing the Clear key.

A B C D E

If your unit is equipped with non-volatile memory, the displayed information will be the text stored during your last session.

In either case, the page may be erased by depressing the CLEAR key.

### PREPARING INFORMATION FOR ROLL

The roll function moves information vertically from bottom to the top of the screen. Eight pages of the memory can be rolled. The Roll selector switch above the keyboard allows one to choose which pages to roll over others. When this switch is in the "2" position, pages 8 and 9 can be rolled. If the switch is in the "4" position, pages 8 through 11 will be rolled. If the switch is in the "8" position, pages 8 through 15 will be rolled.

### INFORMATION FORMAT

Information prepared for a ROLL should be set out in the exact format that it is to appear during the roll. The information must be recorded on consecutive pages. For proper formatting, it is desirable to leave a blank page at the beginning of a roll message. This will help assure clean entry into the roll in a production situation.

Whenever the ROLL function is activated, a roll will always begin with the first line of page 8 appearing at the bottom of the screen.

### BEGINNING THE ROLL

Before beginning a ROLL, both the Preview and Program thumbwheels should normally be set on "8", and the PAGE SELECT

switch should be depressed. The Roll is then commenced by depressing the INSERT key. In some instances, it may be desirable to observe the ROLL on Preview and then to insert it at the proper moment.

### ROLL HOLD

Units manufactured after June 30, 1980 are equipped with a ROLL HOLD function. This feature permits a ROLL to be held at any time for any length of time. A roll may be continued by simply pushing the ROLL HOLD key again.

The ROLL HOLD key is located directly under the CNCL LINE key. Alternatively, this key may be labeled "RETURN".

### TERMINATING A ROLL

A roll may be terminated by any of the following convenient methods:

- a. Release the INSERT function
- b. ROLL HOLD, then release the INSERT function.
- c. Release the ROLL function.

When the last method is used, the last page selected on PROGRAM using the thumbwheel switches will reappear on Program.

### PREPARING INFORMATION FOR CRAWL

The crawl mode moves information horizontally across the bottom of the screen in one continuous line. Any one of the 16 pages of the video typewriter memory can be made to crawl. To enter information for crawl, select any preview page and depress PAGE SELECT. Enter information as if you were typing one long line, leaving spaces between all words, even though a word may appear to end at the end of a line.

A

B

C

D

E -

### RECOMMENDATION

It is recommended that when a page is prepared with information to be crawled that the entire page be filled. This is usually best accomplished by adding strings of periods between phrases and at the end of the message. Note that the last space on a page should always be left blank.

### ACTIVATING A CRAWL

Make certain that the page to be crawled has been depressed. The same page will continue to crawl across the screen repeatedly. If the CRAWL CONT switch is in the "up" position, the message will crawl through the Program screen once and will not reappear. At the conclusion of the crawl, the entire message will appear again on the Preview screen only. Before going on to any other function, (including another crawl), the INSERT key must be released. Please refer to the preceding discussion dealing with CRAWL AND STOP CRAWL.

### OF SPECIAL NOTE:

When Crawl is selected for the very first time, (after the 505 is turned on), the function may appear not to operate. This is normal. When this occurs, wait a few seconds, push STOP CRAWL, and push INSERT twice. Thereafter, the CRAWL mode will always operate normally.

(Note that the STOP CRAWL key operates only after sufficient time has elapsed for one full line to crawl through the raster.)

### PRESENTING CONSECUTIVE ONE-LINE TITLES

Because nearly all switching on the video typewriter is electronic, it is possible to switch between pages and lines while



on the air. The video typewriter will permit an operator to store up to 72 one-line titles which can be switched consecutively while on the air.

#### PREPARING ONE-LINE TITLES

Eight one-line titles may be stored on each of pages 0, 1, 2, 3, 4, 5, 6, and 7. Then, using the one-line window and the Screen-Up, Screen-Down controls, it is possible to consecutively switch through all eight titles on each page. Note, that in order to use this technique, the same page must be selected on Program and Preview. After all the desired titles on one page have been displayed, select the next page on Preview, and depress PAGE SELECT. Using Screen-Up or Screen-Down, move the desired title on the Preview page to the bottom-most line. Then, simply select the same page on the Program thumbwheel and depress PAGE SELECT when you are ready to have the new title appear on the air.

#### ENTERING MATERIAL ON PREVIEW WHILE PROGRAM IS ON-AIR

Whenever the Video Typewriter is displaying material in a static manner (not rolling or crawling), it is possible to enter material on Preview while Program is on the air. Simply select the desired Preview page, depress PAGE SELECT and enter the new material. After the material has been entered, turn the Program thumbwheel to the same page. The newly entered material can be switched on-the-air (cued) simply by depressing PAGE SELECT.

#### INTERMITTENT FLASH

The use of flashing characters or words is frequently more effective if the material appears to flash intermittently on cue. This may be accomplished by presenting identical material

A

B

C

D

E

on two consecutive pages, with certain information flashing on one of the pages. Then, by switching back and forth between pages, the effect of intermittent flash is achieved. The switching will be accomplished by moving the Program thumbwheel to the proper page, and then depressing PAGE SELECT.